G6 of the NZ Building Code (Soundproofing)

INTRODUCTION

Bob Russell (acoustic engineer) and Frana Divich (lawyer) met at the end of 2015. Bob had noticed an increase in the number of sound proofing issues on building sites. Frana had noticed a trend in claims against councils for claimants to include multiple building code breaches (including sound proofing). Together they resolved to write a teaching resource for their mutual clients, councils. That teaching resource can be found at www.regulatorynoise.nz

After writing the teaching resource Frana and Bob spoke on the topic of soundproofing at Senior BOINZ. This article summarises what they spoke about.

THE HISTORY OF G6 OF THE BUILDING CODE

G6 was last amended over 20 years ago in 1994. Since 1994 we have witnessed a proliferation in apartment living. Has the Code kept pace with what is happening? We suspect not.

MBIE is currently undertaking a review of G6.

WHAT DOES G6 SAY?

Objective:

The objective of G6 is safeguard people from illness or loss of amenity as a result of undue noise being transmitted between abutting occupancies.

Functional Requirement:

Building elements which are common between occupancies shall be constructed to prevent undue noise transmission from other occupancies or common spaces to the habitable spaces of household units

Performance:

The Sound Transmission Class of walls, floors and ceilings shall be no less than STC 55 (although a 5 pt tolerance is allowed for field verification measurements made onsite).

The Impact Insulation Class of floors shall be no less than IIC 55 (although a 5pt tolerance is allowed for field verification measurements made onsite).

The determinations

Operational implementation of G6 has focussed on enforcement of the performance standards only, not on G6's wider stated objective of safeguarding people from illness or loss of amenity due to undue noise.

MBIE (and its predecessors) has issued determinations which have narrowed the scope of the performance standards of G6. Determinations on G6 can be viewed at

http://www.building.govt.nz/Utilities/Determinations/determinationsUI.aspx?CategoryId=4&SubCatId=14&SubCat1Id=22&SubCat2Id=207&ArticleId=280&Version=1.0

There are three important principles that can be taken from the determinations:

1. Floor coverings can be changed (and their IIC performance rating reduced) in apartments without building consent, provided that they always comply with the minimum building code onsite performance requirement of IIC 50 (2013/052);
2. IIC and STC requirements do not apply between occupancies and common area corridors (building common corridors are not regarded as occupancies) (2015/004);
3. IIC performance requirements do not apply between horizontally or diagonally separated apartments. (2015/007).

Across the country, the enforcement of G6 by councils for new buildings has been inconsistent.

This creates potential downstream risk for building officials, councils, council insurers and ratepayers.

WHAT ARE THE RISKS?

In Spencer on Byron the Supreme Court articulated that the duty of care owed by councils to building owners extends to encompass bringing buildings up to the standard required by the code without the building having necessarily suffered any physical damage. Quite simply put – if the building has been consented and inspected by the council and it does not comply with the code then the council may be responsible for compensating the owner if the owner has to do work to bring it up to code standard.

The justification for the scope of the duty owed by the council is that in undertaking pre-emptive work, the claimant removes the potential for physical damage and the associated risk to health and loss of amenity that the code is in place to prevent.

Since Spencer on Byron was decided the High Court has followed that reasoning - most recently in Fleetwood, where the court expressed that the council's duty is to ensure that the entirety of the work is code compliant.

It is fair to say that councils do not generally have an employed acoustic engineer sitting down the corridor. When considering the implementation of G6 the council will mostly be reliant upon private sector experts. The council should have good robust systems in place to check the qualifications, competence and honesty of the private sector acoustic engineers it relies upon and the scope of the documentation it receives from them.

For example there is little point in receiving a producer statement that:

1. Does not cover the entire building;
2. Attempts to limit the scope of the engineer's liability;
3. Is signed by an engineer that is not independent of the developer/builder;
4. Does not show the engineers tertiary qualifications in acoustics (and when they were awarded)
5. Is from an inappropriate engineer i.e. where the engineer is not competent and qualified to proffer the opinion;
6. Is from an engineer that does not hold insurance or holds inadequate insurance;
7. Has a signature on it that cannot be readily identified;
8. Is from an engineer who does not pay regard to long term liabilities; and
9. Is from a limited liability company.

The standard upon which the council will be judged is that of a reasonable council according to the standards of the time. It is not a defence that the standards were very bad at the particular time in question. The court will look at what should have happened.

As a side note - if something ends up in court it is always enormously helpful if the council had a policy or internal procedure in place, that policy or procedure was documented, followed and there is a paper trail.

We now go on to consider what the Building Act 2004 requires of the council for new buildings and existing buildings.

FOR NEW BUILDINGS:

We know that:

1. The council must not issue a building consent unless it is satisfied that the minimum design required STC and IIC ratings of STC 55 and IIC 55 between units can be achieved
2. The council must also be satisfied, that minimum required onsite STC and IIC ratings of STC 50 and IIC 50 have been achieved when the construction has been completed, - before it can properly issue a code compliance certificate (CCC); and
3. The minimum required onsite ratings of STC/IIC 50 must be maintained at all times after construction has been completed, as per MBIE ruling (2013/052)

The council has the power to issue a notice to fix if non-compliance with G6 of the code becomes apparent during the course of construction.

FOR EXISTING BUILDINGS

We consider two situations here, the first where there is a change of use in an existing building, the second where alterations take place.

Change of use - new residential occupancies in existing buildings
This is controlled by s 115 of the Building Act 2004. The council must not issue a building consent unless it is properly satisfied that the minimum onsite required STC and IIC ratings of STC 50 and IIC 50 between the units can be achieved (as nearly as reasonably practicable).

The council must not issue a CCC until it can be reasonably satisfied that the new units' inter-tenancy walls and inter-tenancy floor/ceilings have achieved code compliance at construction completion (again as nearly as reasonably practicable)
The minimum required ratings must be maintained at all times after construction has been completed, as per MBIE ruling (2013/0052).

When a new apartment is proposed under another existing unit, particular care needs to be taken.

IIC ratings between units are controlled primarily by the floor coverings on the upstairs floor. The proposed new downstairs unit owner is unlikely to have any control over the floor coverings upstairs. In this situation: how can a council officer be reasonably satisfied that the building element between the existing and the proposed new occupancy will achieve IIC 55/50?

Alternatively, the council might allow a new unit to be created under the "best practicable" clause with an IIC rating of say IIC 40.

However then, we know from (2013/052), that a new common inter-tenancy element has been created. At that point, it is reasonably practicable (in engineering terms) for the upstairs owner to put carpet down (for example on their polished black marble floors).

The downstairs owner might demand this on the grounds that minimum required ratings must be maintained at all times after construction has completed, as per MBIE ruling (2013/052).
Council officers need to take care in this situation for two reasons:

1. The upstairs owner with a black marble floor (or a polished wooden floor for that matter) may be most unhappy about having to cover that floor with carpet; and
2. The council may have very little (if any) control over the upstairs owner and if that is the situation it is difficult to comprehend how the council could be reasonably satisfied the building work will comply with G6 of the Code.

ALTERATIONS

The other situation where there is potential to come unstuck with G6 is when alterations are done to an existing building. That is governed by s 112 of the Building Act 2004.

In this situation the alterations cannot make the building less code compliant than it was to start with. So if sound could be a potential problem (say for example in a cross lease situation) then a pre-renovation soundproofing test would be useful and is recommended.

CONCLUSION

The Building Act offers council employees and agents protection from personal liability unless they do things in bad faith. . However, officers should be mindful that there might be employment issues if council officers do not follow council policy or their own internal procedures. Council officers should ensure that there is a paper trail and if you are relying upon instructions from a manager, make sure that those instructions are in writing and are current.
To protect the council (and themselves), council officers should always keep in mind that buildings must be designed, checked and maintained to meet the minimum (G6) building code requirements.
Building officers should additionally always check any acoustic design or certification documentation against the checklist we have prepared:

1. Does it cover the entire building;
2. Does it attempt to limit the scope of the engineer's liability?
3. Is it signed by an engineer that is independent of the developer/builder?
4. Does it show the engineer's tertiary qualifications in acoustics (and when they were awarded)?
5. Is it from an appropriate engineer i.e. is the engineer competent and qualified to proffer the opinion?
6. Is it from an engineer that holds insurance or holds adequate insurance?
7. Can the signature on it be readily identified?
8. Is it from an engineer who pays regard to long term liabilities? and
9. Is it from a limited liability company?

Obviously councils and BOINZ members are not equipped to assess the qualifications, competence and honesty of individual acoustic engineers. But this may not protect the council from an adverse judgment if the court is asked to consider whether it was reasonable to accept certification from an unsuitable person - and the court finds it was not.

About the authors:

Bob Russell *has held a specialist acoustics warrant with Auckland Council since 2004, - as an external neutral party consultant. In 2012, Bob was also one of 39 students worldwide to successfully undertake the UK Institute of Acoustics Regulatory Noise study paper. In 2016, Bob commissioned development of www.record-situation.com*

Frana Divich *is a partner at Heaney & Partners a boutique litigation firm specialising in professional and public liability claims brought against councils and professionals. For more information about Frana and her partners please visit www.heaneypartners.com*